

App. No. 10/695,302
Office Action Dated May 31, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Claim 16 is amended.

Listing of Claims:

1-15. (Canceled)

16. (Currently Amended) A method of manufacturing a printed circuit board, comprising:
preparing a dielectric substrate of a pre-preg formed by impregnating a glass cloth or a glass nonwoven fabric with a thermosetting epoxy resin mixed with fine particles,
coating both surfaces of the dielectric substrate with mold-releasing films and subsequently forming a via hole,
filling in the via hole with a conductor containing a conductive filler having an average particle diameter larger than an average diameter of the fine particles,
peeling the mold-releasing films and layering metal foils on the surfaces of the dielectric substrate,
compressing the dielectric substrate having the metal foils by applying heat and pressure in order to adhere the dielectric substrate and the metal foils and to connect electrically the metal foils with each other, and
forming the metal foils to have a predetermined pattern,
wherein the mixture of the thermosetting resin with the fine particles is dispersed throughout the entire thickness of the glass cloth or the glass nonwoven fabric.

17. (Previously Presented) The method of manufacturing a printed circuit board according to claim 16, wherein resin layers are present on the surfaces of the pre-preg and have a thickness ranging from 5 μm to 25 μm .

App. No. 10/695,302
Office Action Dated May 31, 2006

18. (Original) The method of manufacturing a printed circuit board according to claim 16, wherein the dielectric substrate in a pre-preg stage comprises a void.
19. (Previously Presented) The method of manufacturing a printed circuit board according to claim 18, wherein the void has a diameter smaller than a diameter of the conductive filler in the conductor.
20. (Original) The method of manufacturing a printed circuit board according to claim 16, wherein the dielectric material is thinned by applying heat and pressure.
21. (Original) The method of manufacturing a printed circuit board according to claim 16, wherein the conductor filled in the via hole formed in the thickness direction of the dielectric substrate is thinned by applying heat and pressure.
22. (Original) The method of manufacturing a printed circuit board according to claim 16, wherein the dielectric substrate has a substantially uniform thickness in the center and in the periphery after application of heat and pressure.
23. (Previously Presented) The method of manufacturing a printed circuit board according to claim 16, further comprising:
filling a conductor in a dielectric substrate composed of a pre-preg of a glass cloth or a glass nonwoven fabric impregnated with a thermosetting epoxy resin mixed with fine particles,
layering the dielectric substrate and metal foils onto both surfaces of a printed circuit board prepared in accordance with claim 16,
compressing the printed circuit board by applying heat and pressure so as to embed wiring layers of the printed circuit board in the resin layers on the surfaces of the dielectric substrate, and
forming the metal foils to have a predetermined pattern, so that a multilayer printed circuit board is obtained.

App. No. 10/695,302
Office Action Dated May 31, 2006

24. (Original) The method of manufacturing a printed circuit board according to claim 16, comprising:

forming a plurality of double-sided printed circuit boards according to claim 16,
filling a conductor in a dielectric substrate composed of a pre-preg of a glass cloth or a glass nonwoven fabric impregnated with a thermosetting epoxy resin mixed with fine particles,
layering the dielectric substrate between the double-sided printed circuit boards,
compressing the printed circuit board by applying heat and pressure so as to embed the wiring layers of the double-sided printed circuit board in the resin layers on the surface of the dielectric substrate,
with all the conductors having substantially same thickness.

25-26. (Canceled)

27. (Previously Presented) The method of manufacturing a printed circuit board according to claim 16, wherein at least one of fine particles selected from powders of SiO_2 , TiO_2 , Al_2O_3 , MgO , SiC and AlN is added to the glass epoxy resin dielectric substrates in a pre-preg stage and a content of the inorganic filler ranges from 30 wt% to 70 wt% to the entire epoxy resin.